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Tubercles, tegulæ, and anterior tibia more or less tinged or marked with yellow . . . . 20.
20. Length 6 mm. or less; anterior tibia spotted with brown; sixth ventral segment of abdomen without an impression (California) . *gularis.*
Length 6½ mm. or more . . . . 21.
21. Species of Mexico . . . . *aratus.*
Species of Colorado; all the tibiæ yellow . . . . *gelidus.*
22. Only the apical border of the abdominal segments pale . . 23.
Abdomen almost entirely reddish; 5 mm. long (Oaxaca, Mexico) . . . . *curtulus.*
23. Species supposed to be Mexican; black, head small . *bivarus*, ♀.
Species of Colorado, Nevada, and Vancouver I.; about 6 mm. long, shining black; face long; mesothorax and scutellum finely, densely punctured; enclosure of metathorax lunate, with fine, irregular, indistinct striæ; wings bronzy-hyaline, nervures yellow; male with labrum dark, and legs brown, without yellow or testaceous markings . . . . *diatretus* ♂, ♀.
24. Not metallic . . . . 25.
At least the head or thorax more or less metallic . . . . 26.
25. Posterior face of metathorax with a sharp border; black, head large; hind spur pale, with three sharp spines (Washington State) *fartus*, ♀.
Posterior face of metathorax with its lateral margins rounded, at least above; black, head small; length, ♀ 6½–7, ♂ 6 mm. (Mexico) *sertus.*
26. Species of South America
beskei (Brazil), *autranellus* (Buenos-Aires), *pisinnus* (Chile).
Species of unknown locality; ♂ 7 mm. long, green . *lanifer.*
Species of Mexico . . . . 27.
27. Less than 7 mm. long . . . . *cubitalis*, *sudus*, and *terginus.*
Over 7 mm. long . . . . *biseptus*, *ectypus*, and *coactilis.*

T. D. A. Cockerell.

Notes on Recent Fish Literature.— Mr. C. Tate Regan, of the British Museum, continues his varied series of fish studies by a number of short papers in the *Annals and Magazine of Natural History.* One of these, "The Phylogeny of the Teleostomi" (May, 1904), must challenge the attention of all palæontologists by its bold theory that the chondrostean ganoids (Palæoniscum, Acipenser, Polyodon, etc.) are the most primitive of teleostomous fishes, and that they have given rise to the crossopterygians and dipnoans as well as to the ostracophores, arthrodires, and teleosts. After separating the still more primitive sharks, Mr. Regan divides the other fishes into five orders, Chondrostei, Crossopterygii, Placodermi, Dipneusti, and Teleostei. The Teleostei have sprung, in his scheme, from the chondrostean ganoids, through the holostean ganoids (Aspidorhynchus, Lepisosteus, Amia, etc.) which he regards as teleosts. On the other hand, the Crossopterygii, likewise descended from Chondrostei, have given rise to Dipneusti (dipnoans) and also to Placodermi. This latter group includes both Ostracophores and Arthrodires. The Heterostraci are excluded from this group, being regarded as armored sharks.

The fact that palæontology does not bear out this view is dismissed with the statement that these conclusions "are in accordance with the morphological evidence, which is clearly and sufficiently complete, whilst the geological record is and must be from the nature of the case very incomplete."

The close resemblance between the basal structures of the paired and the unpaired fins in the Chinese Paddle-fish (*Psephurus gladius*) is one of the important pieces of evidence in favor of the primitive nature of the Chondrostei, and in favor of the origin of all fins alike from folds of skin.

The conclusions of Mr. Regan are thus summed up:

1. The Chondrostei are the most generalized Teleostomi.

2. The Crossopterygii differ from them in the lobate pectoral fin and in the larger paired gular plates.

3. The placoderms (Coccosteidæ, Asterolepidæ, Cephalaspidæ) are a natural group not related to the Heterostraci, which are Chondropterygii. They may probably be regarded as armored primitive Crossopterygii, this view being most in accordance with the arrangement of the cranial roof bones in Coccosteus, the structure of the ventral fin in Coccosteus, and the structure of the pectoral limb in Asterolepidæ (which structure he regards as a true pectoral fin).

4. The Dipneusti probably originated from more specialized Crossopterygii, *e. g.*, from the neighborhood of the Holoptychidæ.

5. The Teleostei differ in so many respects from the Chondrostei that they should rank as an order in which the Holostei are included.

This view of the case is original and suggestive, but so far as the major premise (No. 1 above) is concerned, most naturalists will find it unconvincing.

Mr. Regan discusses the genus Lichia of Cuvier, dividing it into two genera, Lichia (Amia) and Campogramma Regan (Vadigo). *Lichia glauca* he refers to the genus Trachinotus. The gaff-top-sail Pampano, also called *Trachinotus glaucus*, a name of later date, is deprived of its name by the intrusion into the same genus of an earlier *glaucus*. To this American species Regan gives the new name of *Trachynotus palometa*. Porthmeus is a synonym of Lichia, while Hypodis Rafinesque, not mentioned by Regan, is a synonym of Trachinotus.

Regan re-describes *Holocentrus osculus* Poey, and describes *Centropomus argenteus*, a new species, allied to *C. ensiferus*, from Barbadoes and Guiana. *C. mexicanus* he regards as identical with *Centropomus parallelus*.

The following new species are also described by Mr. Regan: *Clupea* (*Opisthonema*) *bulleri* from Las Peñas in Jalisco; *Engraulis argentivittatus* from Las Peñas; *Pseudoxiphophorus pauciradiatus* from Orizaba; *Zoogoneticus maculatus* from Rio Santiago;[1] *Characodon geddesi* from Lake Tezcoco, Mexico; *Heros octofasciatus* from British Honduras; *Heros callolepis* from Santo Domingo de Guzman, Mexico; *Pristigaster* (*Opisthopterus*) *effulgens* from Ecuador; *Ophichthys* (*Pisodontophis*) *brevimanus* from Ecuador; *Piabucina astrigata* from Ecuador; *Piabucina pleurotænia* from Venezuela; *Trichomycterus vittatus* from Peru; *Trichomycterus retropinnis* from Colombia; *Trichomycterus meridæ* from Venezuela; *Pimelodus* (*Pimelodella*) *tæniophorus* from Matto Grosso; *Pimelodus* (*Pimelodella*) *griseus* from Ecuador; *Haplochilus peruanus* from Peru; *Belone* (a *Tylosurus*) *fluviatilis* from Ecuador; *Centropomus atridorsalis* from Ecuador; *Corvina* (a *Sciæna*) *crawfordi* from Montevideo; *Acara saparensis* from Ecuador; *Gobius* (*Awaous*) *guentheri* from Ecuador;[2] *Chasmodes maculipinna* from Ecuador; *Chætodon dixoni* from the New Hebrides; *Draconetta acanthopoma* from the deep waters of the North Atlantic.

Draconetta is considered by Mr. Regan, probably correctly, as an ally of Harpagifer. The nominal family of Draconettidæ is therefore not to be separated from the Harpagiferidæ, and is a close ally of the Nototheniidæ.

A considerable collection made at Rio Janeiro by Dr. Gœldi is the subject of an important paper. The following are the chief additions:

Raia cyclophora new species; *Muræna helena* a Mediterranean species now recorded from Brazil; *Atherinichthys sallei* for a new species of Menidia from Mexico; *Serranus flaviventris* should include *S. dispilurus*, *S. subligarius*, and *S. brasilienis*. It is distinct from *S. auriga*. *Diagramma gœldii* is identical with *Genypterus cavifrons*, for which species Mr. Regan does not accept the older but somewhat doubtful name, *luteus*. *Mylacrodon gœldii* is a new genus allied to Pomadasis but with some molar-like teeth.

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[1] *Fundulus labialis* and *F. guatamalensis* are probably not species of Zoogeneticus as has been suggested by Dr. Meek.

[2] *Gobius latus* O'Shaughnessy is not identical with *G. flavus* nor with *G. banana*. *Gobius* or *Awaous banana*, the West Indian species, should not be identified with *Gobius* (*Awaous*) *taiasica*, a Brazilian species which is probably the same as *Awaous latus*.

The Old World genera, Gazza and Leiognathus, are referred to the Gerridæ, from which they differ in the small scales and in having the gill membranes narrowly united to the isthmus. Regan gives an analysis of the striped species of true Gerres he regards as tenable, *viz.*, *brevimanus*, *plumieri*, *mexicanus*, *lineatus* (including *brasilianus* and *embryx* of the Atlantic coast), *axillaris*, and *patao*. *G. brasilianus* is, however, not the same as *G. lineatus*.

Pristedion altipinnis new species; *Oligoplites saliens* (with four dorsal spines) is a valid species, as are also *O. palometa*, *altus*, *saurus*, and *mundus*.

Not knowing the species of Spanish Mackerel, called *Scomberomorus regalis*, Regan identifies it with *S. maculatus*. The fishermen know better. *Scomberomorus immaculatus* from San Domingo is not identical with *S. cavalla*.

Genypterus brasiliensis, new species; *Achirus fonsecensis* is recorded for the first time from the Atlantic and *Lophius piscatorius* for the first time from Brazil.

In 1900, the "*Albatross*" made a short dredging cruise on the coast of Japan, taking 111 species of fishes. Of these, 58 were new to science and have been described by President Jordan and his associates. In a paper in the *Bulletin* of the United States Fish Commission for 1903, figures of all these new species are given, with references, notes, and descriptions of a number of new species. This memoir is by Jordan and Starks. With it is included a monographic review of the Macrouridæ, or Grenadier-fishes of Japan, by Jordan and Gilbert, with figures of most of the numerous species.

The most important faunal work in ichthyology for the year is the account of the Fishes of Panama Bay by Professor Charles H. Gilbert and Mr. Edwin C. Starks, published by the California Academy of Sciences (Mem., Vol. 4), and reprinted by the Hopkins Seaside Laboratory of Stanford University.

This paper contains a very full account of the fishes of Panama, 374 in all, with excellent plates, the work of Mrs. Chloe Lesley Starks, representing most of the new forms. The descriptions are prepared with that minute attention to accuracy characteristic of all of Dr. Gilbert's work. Of the many new species, the majority were included in the appendix to Jordan and Evermann's fishes of North America. Those not so included are the following:

Galeichthys eigenmanni, *Tachysurus evermanni*, *Fistularia corneta*, *Oligoplites refulgens*, *Peprilus snyderi*, *Sagenichthys* (properly *Macrodon*) *mordax*, *Pomacentrus gilli*, *Halichœres macgregori*, *Balistes verres*, *Xesurus hopkinsi*, *Guentheridia*, a new genus of Tetraodontidæ (*formosa*), *Prionotus ruscarius*, *Microgobius miraflorensis*, *Evermannia panamensis*, *Batrachoidea boulengeri*, *Porichthys greenei*, *Hypsoblennius piersoni*. *Lythrulon opalescens* is not distinguishable from *L. flaviguttatum*, and *Menticirrus simus* is identical with *M. nasus*. *Eleotris æquideus* cannot be separated from *E. pictus*, and *Microgobius cyclolepis* is the same as *M. emblematicus*. *Ancylopsetta sabanensis* is identical with *A. dendritica*, and the genus *Ramularia* is not tenable. *Solea fischeri* and *Solea panamensis* are synonyms of *Achirus fonsecensis*.

The following conclusion as to the relations of the fish faunas on the two sides of the isthmus of Panama is of special interest. "The ichthyological evidence is overwhelmingly in favor of the existence of a former open communication between the two oceans, which must have become closed at a period sufficiently remote from the present to have permitted the specific differentiation of a very large majority of the forms involved. That this differentiation progressed at widely varying rates in different instances becomes at once apparent. A small minority of the species remains wholly unchanged, so far as we have been able to determine that point. A large number have become distinguished from their representatives of the opposite coast by minute (but not 'trivial') differences, which are wholly constant. From such 'representative forms,' we pass by imperceptible gradation to species much more widely separated, whose immediate relation in the past we cannot confidently affirm. Of identical species, occurring in both oceans, our Panama list contains 43.

"The total number of identical species which we recognize in the two faunas now separated by the Isthmus is therefore 54, as compared with the 71 enumerated by Jordan (1885). It is obvious, however, that the striking resemblances between the two faunas are shown as well by slightly divergent as by identical species, and the evidence in favor of interoceanic connection is not weakened by an increase in one list at the expense of the other. All evidence concurs in fixing the date of that connection at some time prior to the Pleistocene, probably in the early Miocene. When geological data shall be adequate definitely to determine that date, it will give us the best known measure of the rate of evolution in fishes.

Of the 82 families of fishes represented at Panama, all but 3 (Cerdalidæ, Cirrhitidæ and Nematistiidæ) occur also on the Atlantic side of Central America; while of the 218 genera of our Panama list, no fewer than 170 are common to both oceans. The well-developed families Centropomidæ and Dactyloscopidæ are peculiar to the tropical faunas now separated by the Isthmus of Panama."

In the *Journal* of the Academy of Natural Sciences at Philadelphia (Vol. 12), Mr. Henry W. Fowler has a valuable report on the fishes collected in Sumatra by Harrison and Heller; 248 species are embraced in this collection. This includes a number of new species. This paper contains notes on the little known forms, with excellent plates of many of them. The paper will be of great value in the study of the East Indian fauna. Several new subgenera are proposed. Deveximentum is a new genus allied to Leiognathus, based on *L. insidiator*; the same species is the type of the earlier name Equula.

In the *Proceedings* of the California Academy of Sciences, Vol. 3, series 3, the late Cloudsley Rutter records a few fishes from the Gulf of California. He unites the genus Villarius with Ictalurus and describes a new Eleotrid Goby under the name of *Pycnomma semisquamatum*. The genus is certainly close to the imperfectly known genus Gymneleotris. A new description of *Emblemaria oculocirris* is given.

In the same *Proceedings* Dr. Charles H. Gilbert has notes and descriptions of fishes of the Pacific. *Netuma mazatlana*, new species, from Mazatlan; *Nemichthys avocetta*, which is properly the same as *N. scolopaceus*;[1] *Schedophilus heathi*, new species, from Monterey; *Xeneretmus infraspinatus*, new species, from Cape Flattery. *Clevelandia rosæ* is identical with *Clevelandia ios; Rathbunella alleni*, new species, from Monterey; *Auchenopterus mexicanus*, new species, from La Paz.

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[1] The supposed character of the dorsal rays in Nemichthys distinguishing it from other eels is fallacious, being produced by the drying of the specimen.

In the *Report* of the Illinois Fish Commission for 1902, Mr. Thomas Large gives a useful list of the fishes of Illinois, with analytical keys and notes on the different species.

In the *Proceedings* of the U. S. National Museum (Vol. 27) Jordan and Snyder describe new species of fishes from Hawaii as follows: *Brachysomophis henshawi*, *Ariomma lurida*, *Lactoria schlemmeri*, *Antennarius laysanius*, and *Apogon evermanni.* A number of other species are added to the fauna of the islands. Ariomma is a new genus, apparently allied to Apogon.

In the *Proceedings* of the Biological Society of Washington (Vol. 17) Dr. H. M. Smith describes a small eel found in the deep waters south of Nomans Land. It is entirely black and with the eyes wholly hidden. Otherwise it is quite similar to the common eel. Dr. Smith calls it *Anguilla cæca.*

In the *Proceedings* of the Scientific Society of Christiania for 1904, Dr. Collett describes four new species of deep-sea fishes from the Faroë Islands. These are *Etmopterus princeps*, *Pristiurus murinus*, *Chimæra mirabilis*, and *Halargyreus affinis.* The Chimæra is made the type of a new subgenus called Bathyalopex, having the anal united with the caudal. The Japanese species *mitsukurii* would belong to this group, which is, however, scarcely entitled to distinctive rank.

In the *Bulletin* of the Museum of Comparative Zoölogy at Harvard College (Vol. 46, No. 1) Dr. Eastman gives a very interesting account of the history of the fish collections from Monte Bolca in Tuscany. A fine collection of these fishes is now in the Museum of Comparative Zoölogy. Dr. Eastman gives the synonymy of the principal species in this collection, with descriptions and figures of the most important species. The new generic name Histionotophorus is proposed for a Lophioid form and a new species of Pygæus, *P. agassizi*, is described and figured. The species called *Symphodus szajnochæ* doubtless represents a new genus of Labridæ, and the so-called *Caranx primævus* should also represent a new genus even more Trachurus-like than Trachurus itself.

In the *American Journal of Science* (Vol. 18, No. 104), Dr. Eastman discusses the appendages of Asterolepis. He regards these paddles as not homologous with the pectoral fins of the true fishes, his view being opposed to that recently put forth by Mr. Regan.

In the *Journal* of the College of Science of Tokyo (Vol. 19) Dr. Bashford Dean gives an elaborate account of the anatomy of the long-snouted Chimæra of Japan, *Rhinochimæra pacifica.*

In the *Journal* of the College of Science at Tokyo, Dr. Bashford Dean discusses the hag-fishes, or Myxinoids, of Japan, describing a new genus, *Paramyxine atami*, and a new species, *Homea okinoseana.* He also adds notes on *Homea burgeri* and *Myxine garmani*, with an analysis of the species of the genus, which he calls Homea, but which must stand under the less satisfactory but earlier name of Eptatretus. In the same *Journal* Dr. Dean has notes on the Chimæras of Japan, giving a full account with excellent plates of *Chimæra mitsukurii* and *C. phantasma.* The distinction between these two species was recognized almost simultaneously by Jordan and Snyder, who adopted the name "*mitsukurii*" proposed by Dr. Dean in correspondence.

Dr. Léon Vaillant in the *Comptes Rendus* for 1904 gives an interesting account of the Japanese goblin shark, *Mitsukurina owstoni*, of which a specimen about seven feet long has been received by the Museum at Paris. Dr. Vaillant puts the species in the family of Lamnidæ with Odontaspis and other related forms.

In the *Bulletin* of the Museum at Paris for 1903, Dr. Vaillant gives an account of the hatching of eggs in the branchial cavity in the species of Apogon-like fish, called *Cheilodipterus affinis*, at Martinique.

In the same *Bulletin*, Dr. Vaillant and Dr. Pellegrin give new descriptions of the species of Tetragonopterus, very briefly and unrecognizably mentioned in 1868 by Dr. M. F. Bocourt in the *Bulletin* of the Société Zoölogique de France. Dr. Pellegrin also gives an account of fishes collected on the coast of Chile.

In the *Records* of the Australian Museum (Vol. 5, No. 4), Mr. Edgar R. Waite gives a valuable account of rare fishes lately taken on the coast of eastern Australia. He shows that the genus Goodella is the larval form of Trachinocephalus. The identity of the Japanese genus Iso with the Australian Tropidostethus is also indicated; but Mr. Waite overlooks the fact that the latter name is preoccupied, and the genus may still remain Iso.

In the *Zoologischer Anzeiger* (Vol. 27, No. 22), Dr. L. S. Berg describes a new genus of sturgeons which he calls Huso, the type being *Acipenser huso.* This differs from the other sturgeons in having the gill membranes united, forming a free fold across the isthmus. The snout is soft and flexible and the very large mouth includes the whole under surface of the snout. The barbels are compressed. This definition is a new one, but the generic name Huso was used by Brandt and Ratzeburg in 1883 for a subgenus including the same type.

Under the title of "Pescas do Annie," Dr. Alipio de Miranda Ribeiro gives an account of fishes taken by the Steamer "*Annie*" off the coast of Brazil with the "otter trawl." Fifty-nine species were obtained. These are illustrated by means of photographs. Among the new species are *Fistularia rubra*, *Anthias duplicidentatus*, *Liocsacus intermedius*, *Pontinus corallinus*, *Peristedion roseum*, *Pseudopercis numida*, *Hypsicometes heterurus*, *Lepophidium fluminense*, *Urophycis mystaceus*, *U. latus*, *Paralichthys triocellatus*, and *Gymnachirus zebrinus.*

In *Sports Afield* for August, 1904, Dr. Barton W. Evermann gives valuable suggestions as to how to study a lake. This has particular reference to training children and young students to learn how to weigh evidence. Dr. Evermann calls attention to the fact that most of the so-called "bottomless" lakes are from 40 to 60 feet deep.

In the *Bulletin* of the U. S. Fish Commission for 1904 Dr. Jordan gives an account of fishes collected by Dr. Joseph C. Thompson on the Tortugas, with the descriptions of several species, four of them new, *viz.*:— *Ctenogobius tortugæ*, *Gnatholepis thompsoni*, *Elacatinus oceanops*, and *Ericteis kalisheræ.* A new genus, Acteis, is proposed for the small blenny called *Malacoctenus moorei.*

Under the title of "The Fresh-water Fishes of Mexico north of the Isthmus of Tehuantepec," the Field Columbian Museum publishes a most valuable faunal monograph by Dr. Seth Eugene Meek. It represents the results of two expeditions to Mexico, together with the examination of all previous papers on the fish fauna of that region. Two hundred and twenty-seven species are described, 28 of them being new, with three new genera. Excellent plates of these species and many others are given, with a map of Mexico, and a very illuminating discussion of the faunal regions into which Mexico is divided.

The new genera are Cynodonichthys, allied to Fundulus, but with large canines, Paragambusia, and Thorichthys, the latter related to Cichlasoma. Dr. Meek recognizes four distinct fish faunas in Mexico. One of these in the northeast is composed largely of migrants from the north, as Carpiodes, Ictalurus, Lepisosteus. Another is made up of migrants from the south, as Rhamdia, Cichlasoma, etc. The third region includes the valley of the Rio Grande de Santiago, including the now isolated lakes about the city of Mexico. This includes most of the characteristic Mexican types as Chirostoma, Goodea, Aztecula, Evarra, etc. Very many species in this region are viviparous. The genus Chirostoma stands out as almost the only case among fishes where numerous closely related species inhabit exactly the same waters. In the large lake of Chapala, there are eight closely allied representatives of this type, all taken in the same nets, and all alike known in the markets as the "Pescado blanco," noted for its delicate flavor. These species are *Chirostoma chapalæ*, *grandocule*, *promelas*, *sphyræna*, *lucius*, *lermæ*, *ocotlanæ*, and *estor*. In several other lakes, other species occur in similar assemblages. But one species of Chirostoma is known outside the Lerma-Santiago fauna. In almost every other case among fishes, where two closely related species occur, they are not in the same waters, but in neighboring waters. This indicates that almost all species of fishes have originated through geographical isolation. Possibly the forms of Chirostoma may have come into existence as mutations or saltations. In no other case in ichthyology is this theory equally plausible. The fourth faunal basin of Mexico includes the large river Balsas, flowing southward, and containing but few kinds of fishes. The most notable is a very large cat-fish peculiar to this basin, constituting the genus Istlarius.

In the *Bulletin* of the Illinois State Laboratory of Natural History (March, 1904), Mr. R. E. Richardson gives a monographic review of the sun-fishes (Lepomis and Eupomotis) found in Illinois. He places *euryorus* in the genus Lepomis, and recognizes two species (*gibbosus* and *heros*) under Eupomotis. Apomotis Mr. Richardson unites with Lepomis.

Otaki and Fujita have published two more folios of their "Fishes of Japan," (Tokyo, 1904,) with Japanese text, and large colored plates well executed, but of a size inconvenient for binding.

In the *Report* of the Government Biologist of the Cape of Good Hope for 1903, Dr. J. D. F. Gilchrist describes seventeen new species of fishes from that region. One new genus, Cyttosoma, allied to Cyttus, is also recorded.

In Vol. II of the *Results of the Danish Ingolf Expedition*, Dr. Adolf Severin Jensen gives an elaborate account of the Lycodinæ of North Europe and Greenland, with a series of excellent plates. The genus Lycodalepis is united by Jensen with Lycodes. The species generally receive better definitions than have been given by any previous author.

Dr. Gill discusses in the *Proceedings* of the United States National Museum for 1904 the relations of the family of Ammodytidæ. In view of the discovery of the Ammodytoid genus Embolichthys, with jugular ventrals, these fins being wanting in all previously known species, the group belongs among the jugular fishes. Dr. Gill finds no relative nearer than the Hemerocoetidæ.

In the *Biological Bulletin* for October, 1904, Mr. Edwin C. Starks discusses the osteology of the fishes of the order or suborder Haplomi. He finds it a heterogeneous group, including probably varying lines of descent, having the bond of union of abdominal ventral fins, no fin spines, and the loss of the mesocoracoid and orbitosphenoid characteristic of more primitive fishes.

In the *Revista Chilena de Historia Natural*, for 1904, Dr. Carlos E. Porter describes some new fishes from the deep seas of Chile.

In the *Transactions* of the Zoölogical Society of London, for 1904, Mr. C. Tate Regan gives a voluminous and important monograph of the mailed cat-fishes of the South American fauna known as Loricariidæ.

Dr. Joseph Schmitt publishes in Paris a valuable *Monographie de l'Ile Anticosti*, with a list of its animals, about 25 common fishes being included.

Jordan and Snyder describe in the *Proceedings* of the U. S. National Museum for 1904, *Apogon evermanni*, a new fish from Hawaii.

D. S. J.